

Appl. No. 10/056,212
 Amdt. dated October 1, 2003
 Reply to Office action of July 2, 2003

Amendments to the Claims

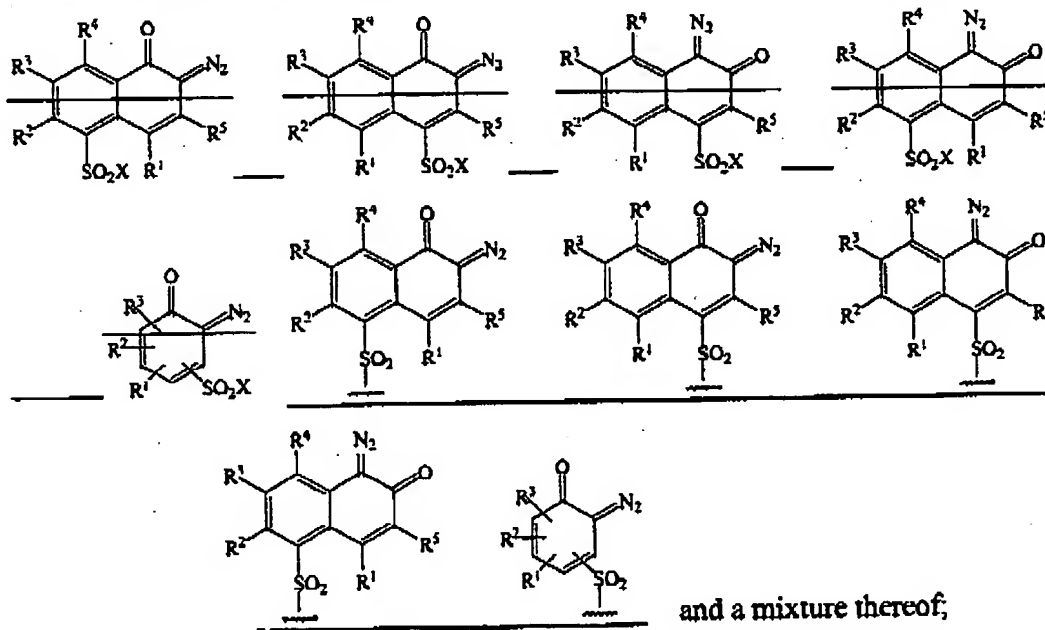
This listing of claims will replace all prior versions, and listings, of claims in the application:

a1
 1. (Currently Amended) A positive working imageable composition, comprising:
 • an ink-receptive hydroxyfunctional resin comprising a covalently bound radiation sensitive group capable of increasing the solubility of said imageable composition in an alkaline developer upon exposure to radiation; and
 an isocyanate crosslinking agent.

2. (Cancelled)

3. (Currently Amended) The imageable composition of claim 1, wherein said covalently bound radiation sensitive group is ~~derived from an~~ sensitive to ultraviolet radiation ~~sensitive compound~~.

a2
 4. (Currently Amended) The imageable composition of claim 3, wherein said ~~ultraviolet~~ radiation sensitive ~~compound group~~ is selected from the group consisting of ~~compounds represented by~~ moieties of the formula:



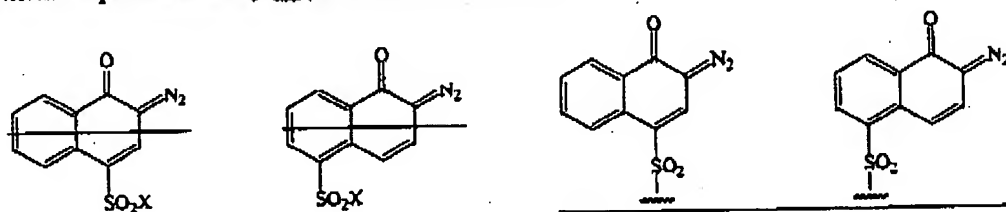
wherein

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a²

each of R¹, R², R³, R⁴ and R⁵ is independently selected from the group consisting of: hydrogen, linear, branched or cyclic alkyl of 1 to 22 carbon atoms, aralkyl of 6 to 22 carbon atoms, aryl, alkaryl, alkoxy of 1 to 22 carbon atoms, haloalkyl, halogen, acyl, ester and cyano, ~~and~~
 wherein x is halogen.

5. (Currently Amended) The imageable composition of claim 4, wherein said ~~ultraviolet~~ radiation sensitive ~~compound~~ group is selected from the group consisting of ~~compounds represented by~~ moieties of the formula:



wherein

x is chlorine.

6. (Cancelled)

a³

7. (Currently Amended) The imageable composition of claim 6 ~~1~~, wherein said ~~polyfunctional phenolic resin free of radiation sensitive groups~~ is hydroxyfunctional resin further comprises a resin moiety derived from a polyfunctional resin selected from the group consisting of: ~~polyfunctional phenolic resin~~, a novolak resin, a pyrogallol/acetone resin, polyvinyl phenol polymer, vinyl phenol/hydrocarbyl acrylate copolymer, a resole resin, an acrylic resin, a polyester resin, a polyurethane resin, a polyol and a mixture thereof.

8. (Currently Amended) The imageable composition of claim 7, wherein said ~~polyfunctional phenolic resin free of radiation sensitive groups~~ polyfunctional resin is ~~selected from the group consisting of:~~ a phenol novolak resin, a cresol novolak resin, a phenol/cresol novolak resin, a resole resin ~~and or~~ a mixture thereof.

9-12. (Cancelled)

a⁴

13. (Currently Amended) The imageable composition of claim ~~11~~ 1, wherein said isocyanate crosslinking agent is selected from the group consisting of: isophorone

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04
diisocyanate, methylene-bis-phenyl diisocyanate, toluene diisocyanate, hexamethylene diisocyanate, tetramethylxylene diisocyanate, dimers thereof, adducts thereof with diols, adducts thereof with triols, adducts thereof with polyols, adducts thereof with polyesters, adducts thereof with acrylic resins, adducts thereof with polyurethane polyols, adducts thereof with an isocyanate blocking agent and mixtures thereof.

14. (Currently Amended) The imageable composition of claim 13, wherein said isocyanate crosslinking agent further comprises a blocking agent ~~is~~ selected from the group consisting of: a phenol, an oxime, a lactam and a pyrazole.

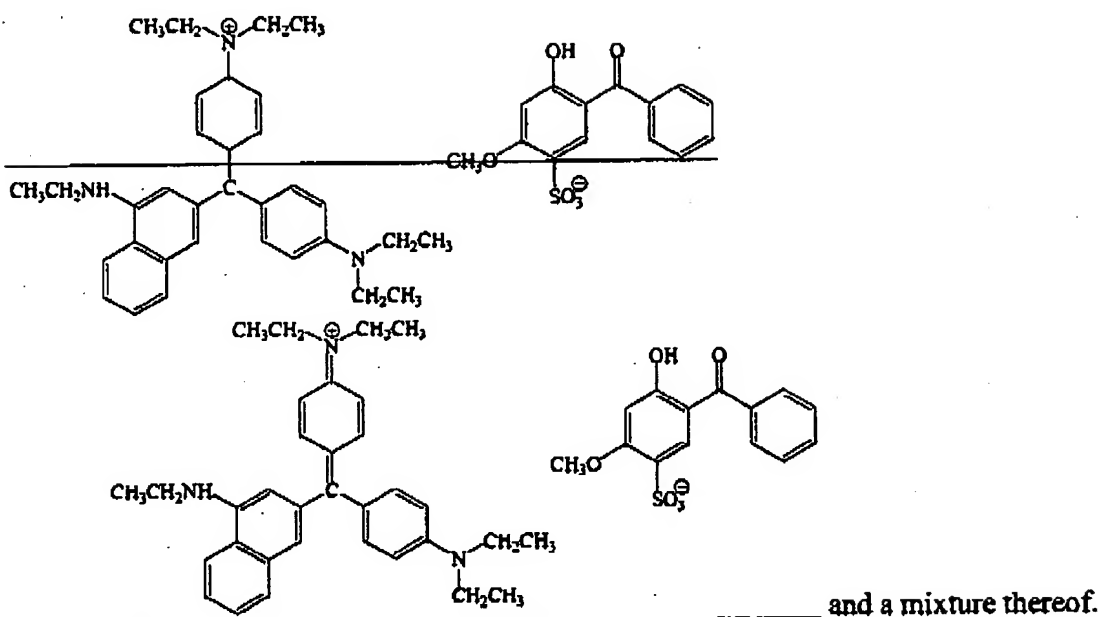
15. (Currently Amended) The imageable composition of claim 14, wherein said isocyanate blocking agent is ~~selected from the group consisting of~~ phenol, methyl ethyl ketone oxime, 2-pyrrolidone, 2-piperidone, caprolactam ~~and or~~ 3,5-dimethylpyrazole.

16. (Original) The imageable composition of claim 1, further comprising:
a colorant; and
an acid generator.

17. (Original) The composition of claim 16, wherein said colorant is selected from the group consisting of: a colorant dye, a colorant pigment and a combination thereof.

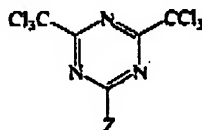
05
18. (Currently Amended) The composition of claim 17, wherein said colorant dye is selected from the group consisting of: crystal violet, crystal violet lactone, basonyl blue, victoria pure blue BO, victoria blue B, blue colorant dye victoria blue FBR represented by the formula:

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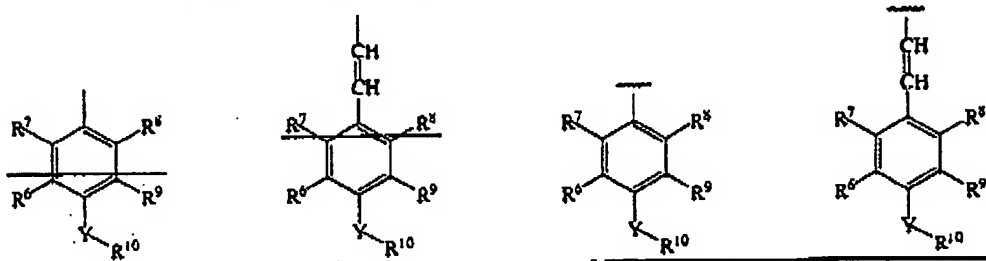
19. (Cancelled)

20. (Currently Amended) The imageable composition of claim ~~19~~ 16, wherein said acid generator is a light sensitive triazine compound ~~represented by~~ of the formula:



wherein

Z selected from the group consisting of: hydrogen, linear, branched or cyclic alkyl of 1 to 22 carbon atoms, aralkyl of 6 to 22 carbon atoms, aryl, alkaryl, alkoxy of 1 to 22 carbon atoms, haloalkyl, halogen, acyl, ester, cyano, a ~~group represented by~~ moiety of the formula:



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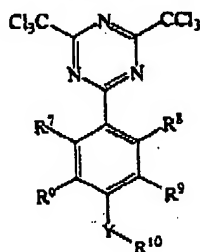
wherein

each of R^6 , R^7 , R^8 and R^9 is independently selected from the group consisting of: hydrogen, linear, branched or cyclic alkyl of 1 to 22 carbon atoms, aralkyl of 6 to 22 carbon atoms, aryl, alkaryl, alkoxy of 1 to 22 carbon atoms, haloalkyl, halogen, acyl, ester and cyano, ~~wherein~~ or R^6 and R^7 or and/or R^8 and R^9 together with carbon atoms to which they are attached to ~~can~~ form a cycloaliphatic, benzo or a substituted benzo ring;

~~wherein~~ R^{10} is selected from the group consisting of: linear, branched or cyclic alkyl of 1 to 22 carbon atoms, aralkyl of 6 to 22 carbon atoms, aryl, alkaryl, haloalkyl, acyl, ester and cyano; and

~~wherein~~ Y is ~~a heteroatom selected from the group consisting of:~~ oxygen ~~and~~ or sulfur.

21. (Currently Amended) The imageable composition of claim 20, wherein light sensitive triazine compound is ~~represented by~~ of the formula:



wherein

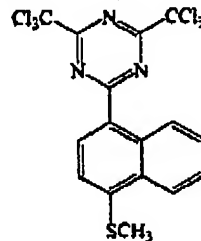
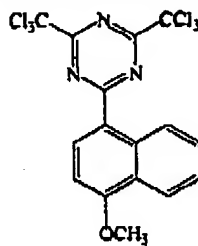
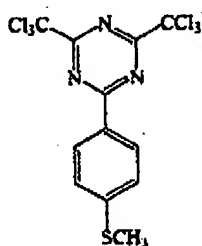
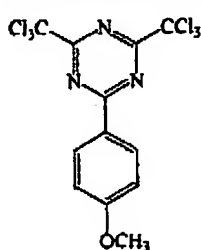
each of R^6 , R^7 , R^8 and R^9 is independently selected from the group consisting of: hydrogen, linear, branched or cyclic alkyl of 1 to 22 carbon atoms, aralkyl of 6 to 22 carbon atoms, aryl, alkaryl, alkoxy of 1 to 22 carbon atoms, haloalkyl, halogen, acyl, ester and cyano, ~~wherein~~ or R^6 and R^7 or and/or R^8 and R^9 together with carbon atoms to which they are attached to ~~can~~ form a cycloaliphatic, benzo or a substituted benzo ring;

~~wherein~~ R^{10} is selected from the group consisting of: linear, branched or cyclic alkyl of 1 to 22 carbon atoms, aralkyl of 6 to 22 carbon atoms, aryl, alkaryl, haloalkyl, acyl, ester and cyano; and

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a6
wherein Y is ~~a heteroatom selected from the group consisting of~~ oxygen and
or sulfur.

22. (Original) The imageable composition of claim 21, wherein said light sensitive triazine compound is selected from the group consisting of:



and a mixture thereof.

a7
23. (Currently Amended) The imageable composition of claim ~~19~~ 16, wherein said ~~onium salt~~ acid generator is selected from the group consisting of: an iodonium salt, a sulfonium salt, a hydrocarbyloxysulfonium salt, a hydrocarbyloxyammonium salt, an aryl diazonium salt and a combination thereof.

24-33. (Cancelled)

a8
34. (Currently Amended) An imageable element comprising:
a substrate comprising a hydrophilic surface; and
a positive working imageable composition coated on a surface of said substrate,
said composition comprising:
an ink-receptive hydroxyfunctional resin comprising a covalently
bound radiation sensitive group capable of increasing the solubility
of said imageable composition in an alkaline developer upon
exposure to radiation; and
an isocyanate crosslinking agent.

35. (Cancelled)

36. (Original) The imageable element of claim 34, wherein said positive working imageable composition further comprises a colorant and an acid generator.

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37. (Currently Amended) A method of producing an imaged element comprising the steps of:

providing an imageable element comprising a substrate comprising a hydrophilic surface and a positive working imageable composition coated on ~~a~~ the surface of said substrate, wherein said imageable composition ~~comprising~~ comprises:

~~a~~ an ink-receptive hydroxyfunctional resin comprising a covalently bound radiation sensitive group capable of increasing the solubility of said imageable composition in an alkaline developer upon exposure to radiation; and

an isocyanate crosslinking agent;

heating said imageable element at a temperature and length of time sufficient to produce a crosslinked imageable element;

imagewise exposing said crosslinked imageable element to radiation to produce an imagewise exposed element having exposed and unexposed regions; and

~~contacting said imagewise exposed element and a developer to remove~~ removing the exposed regions of said imageable composition ~~and thereby to~~ to produce said imaged element.

38. (Original) The method of claim 37, wherein said positive working imageable composition further comprises a colorant and an acid generator.

39. (Original) The method of claim 37, wherein said exposing step is carried out using ultraviolet radiation.

40-49. (Cancelled) ✓